CHAPTER 9G

PAINTING

9G-01.  GENERAL

a.  <u>References</u>.  Should you have to examine the test reports, the referenced publications for those type paints and coatings must be used to:

(1)  Compare and determine conformance.

(2)  Decide to approve or reject the material.

(3)  Request additional sampling and testing.

b.  <u>Safety</u>

(1)  Check the requirements for storage of paints, brushes, rags; ventilation in confined spaces; and protection when spray painting.

(2)  Check working platforms, scaffolds, swing stages for protective devices.

(3)  Detail information is in the 'Safety and Health Requirements" Manual.

90-02.  SUBMITTALS

a.  <u>Certificates</u>. Check for the certificate attesting to not more than 0.06 percent lead in any and all materials provided. (Except for lead-base primers to be used in concealed locations.)

b.  <u>Manufacturers* Instructions are required for</u>:

(1)  Textured coatings.

(2)  Epoxy

(3)  polyurethane

(4)  Liquid glaze

c.  <u>Samples</u>

(1)  Be sure material is well mixed before sample is drawn.

(2)  Mark quart samples and include represented quantity and batch number.

(3)  Sample each type representing more than 25 gallons.

(4)  Store samples at specified temperature range for future testing or:

(a)  Send to a laboratory for immediate testing for samples representing 50 or more gallons.

(b)  Decide to send for test where sample represents 25 to 50 gallons for use.

(c)   Use an approved test report representing material not sampled.

(d)   Check for approved proprietary brands substituted for specified type in quantities not exceeding 25 gallons.

(5)   Are the sample panels representing each type liquid glaze coating approved? Check for specified coating thickness.

(6)   A sample finished room may be required. It will be important to observe paint application and the finishes to determine acceptance.

9G-03   MATERIALS

a.   General

(1)   Check containers for proper labeling and storage.

(2)   Examine material in damaged containers for possible rejection.

(3)   The 5 gallon container is maximum size for pigmented paints.

(4)   Water-thinned paints must be kept at above freezing temperature.

b.   Cement—Emulsion Filler Coat

(1)   Use either acrylic or polyvinyl acetate (PVA) exterior emulsion; do not intermix or interchange.

(2)   Check the dry ingredients, i.e., cement and sand for specification compliance.

(3)   Mixing of the five ingredients is done just prior to application.

c.   Solvent-Thinned Filler Coat. Comes pre—mixed for immediate use. Check Federal Specification TT-F-1098.

d.   Vinyl Wash Coat. Two component. Must be mixed at job-site. Check Mil. Specification DOD-P-15328. For use as prime coat on painted, galvanized steel or non-ferrous surfaces.

e.   Vinyl System

(1)   Uses Steel Structures Paint Council Specification SSPC-Paint 9-64 material.

(2)   Used to protect ferrous metal surfaces exposed in severe chemical or salt atmospheres.

(3)   Do not use over conventional paint, including primed metal surfaces.

f.   Fungicide

(1)   Additive into paint at paint manufacturer.

(2)   Check for labeling end don*t accept an "overstamp" unless validated by manufacturer.

    (3)   For all paint coats where specified.

    (4)   Check for specified use over pipe insulation.

    (5)   Check for use over painted formboard ceilings.

    g.   Mixing and Thinning.

    (1)   Check for complete mixing by observing consistency and color.

    (2)   Are base coats tinted?

    (3)   Job mix must be in accordance with manufacturer*s instructions.

    (4)   Check pre-mix and mixing cycle for cement—emulsion fill coats.

    (5)   Is vinyl wash coat used same day it is mixed?

    (6)   Maximum thinning is one pint per gallon of paint; immediately before application and at application temperature.

    (7)   Don*t intermix different type paints or different manufacturers paint.

## 90-04.  SURFACE PREPARATION

    a.   General

    (1)   Check for protection of unpainted adjacent surfaces.

    (2)   Are ferrous metal surfaces, including fastener heads, primed before coating with water-thinned paints?

    (3)   Check for oil and grease. Remove same from surface with a low toxicity solvent.

    (4)   Concrete, stucco and masonry must age for 3D days before beginning painting.

    (5)   Is masonry clean of mortar gobs and fins?

    b.   For Cement-Emulsion Filler

    (1)   Check for uniformly damp masonry surface immediately before painting.

    (2)   No standing water permitted.

    c.   For Primers

    (1)   Check ferrous metal and remove all rust and loose mill scale. Solvent clean before priming.

    (2)   Galvanized surfaces must be solvent cleaned and a vinyl wash coat applied within 24 hours before priming.

    (3)   Painted non-ferrous metals receive same treatment as galvanized metal.

(4)   Check for immediate cleaning and priming of abraded
shop coating.

d.   For Washable Paint Systems

(1)   Check the specified paint system to determine
preparation.

(2)   Finish coating may be enamel semi-gloss or gloss type
or the epoxy, polyurethane over masonry surfaces.

(3)   Check manufacturer*s instructions for base coat
preparation for epoxy, polyurethane and liquid glaze coatings.

(4)   Check for acid etch treatment to concrete for the epoxy
and polyurethane systems.

(5)   Check for use of solvent-thinned filler as preparation
for enamel undercoats, epoxy or polyurethane over masonry
surfaces.

(6)   Seal plaster and gypsum board with latex paint coat
before proceeding with enamel, epoxy or polyurethane washable
paint systems.

e.   Plaster

(1)   Must satisfy two requirements:

(a)   Age for at least 30 days.

(b)   Contain not more than 5 percent moisture.

(2)   Use a moisture peter with plaster calibration and use
probe in low visibility locations.

f.   Wood

(1)   Check for treatment of knots and other breaks that
bleed pitch.

(2)   Have nails and other fasteners been set in finish
surfaces in preparation for primer? Touch-up is still required
even in the wood was previously primed.

(3)   Sand smooth the finish wood surfaces of millwork.

(4)   Remember to seal wood adjacent to surfaces about to
receive water-thinned paints.

(5)   Check moisture content of wood before painting. A
maximum of 12 percent is permitted for painting. Use a moisture
meter.

9G-05.   APPLICATION

a.   Temperature

(1)   Check the different requirements for ambient
temperature such as:

(a)   A 50 to 90 degree F range for applying water-thinned
paints.

(b)   A 45 to 95 degree F for most other paints. Note that liquid glaze, epoxy and polyurethane manufacturers may have other temperature requirements.

(2)   Check for minimum humidity during polyurethane application, Usually is 3 percent minimum.

b.  Methods

(1)   Permit use of brush, roller or spray except:

(a)   Stiff-bristle type brush application required for cement—emulsion filler coat.

(b)   Brush out solvent-thinned filler cost then squeegee off the excess when tacky.

(c)   Brush on the first coating on metal surfaces.

(d)   Brush on solvent-type stains.

(e)   Check for textured coating manufacturer*s special application instructions.

(2)   Check coverage for uniformity in texture and color. Remember the base coats must be tinted.

(3)   Your system for checking color, number of coats and quality should be worked out with your supervisor in advance.

(4)   Be especially alert for uniformity of coating appearance. Touch up may be required for suction spots on porous surfaces.

(5)   Check for coverage in hard to reach locations.

(6)   Check for dryness before applying additional coats or removing required temporary heat. Different type paints have different dryness characteristics but, generally, if a finger rub does not mar the painted surface, the paint coat is dry.

c.  Coverage and Thickness

(1)   Refer to manufacturer*s instructions for epoxy, polyurethane and liquid glaze coatings.

(2)   Check coating thickness for liquid glaze. Required base coats is 5 mile minimum and the top or glaze coat is 3 mile minimum, Use a thickness gage suitable to the surface coated to make these checks.

(3)   Film thicknesses are specified for paint on ferrous metal surfaces. Spot check these thicknesses for primer coat and total system with a thickness gage.

(4)   Vinyl-wash coat film thickness requirements are usually specified.

(5)   Check painting applicator for uniform coverage. The paint being used must be mixed frequently to maintain consistency and color.

d. <u>Natural Finish</u>

(1)  Check exterior wood surfaces to be stained. Rough surface requires about double the amount of stain.

(2)  Check varnished surfaces for smoothness. Sand smooth after each coat of varnish.

(3)  Use wood filler coat for smooth surfacing open grain wood such as oak.

(4)  Check putty on wood filler color tinting to match natural finish.